

CLAIMS

What is claimed is:

1. A drainage support matrix defined by an article that manifests an obverse face and a reverse face, said article comprising at least one duct member, the duct member
5 configured for disposition in unobstructed adjacency with another duct member and itself comprised of an arrangement of multiple elements of a select parametric geometry, each of the multiple elements having a central void and disposed in coaxial alignment with all other said multiple elements of the arrangement.
- 10 2. The matrix of claim 1, wherein said parametric geometry of the elements is one selected from the set of geometries consisting of circles, ellipses and quadrilaterals.
3. The matrix of claim 2, further comprising two or more of the duct members and each are comprised of multiple said parametric geometries that define a coil.
- 15 4. The matrix of claim 3, wherein said two or more of the duct members are coupled to each other by at least one stringer.
5. The matrix of claim 3, wherein said two or more of the duct members are coupled to
20 each other by their intertwinement.
6. The matrix of claim 2, wherein the arrangement of multiple elements of said at least one duct member, being in said co-axial alignment, are joined integrally to at least one

longeron and each said element of said multiple comprises one or more of said set of geometries lying within a common plane.

7. The matrix of claim 6, wherein said two or more of the duct members are coupled
5 fixedly to each other by at least one stringer.

8. The matrix of claim 6, wherein said two or more of the duct members are coupled movably by encirclement of the elements of one about said at least one longeron of the other, with an interleaving of the elements of said one with the elements of said other.
10

9. The matrix of claim 6, wherein said two or more of the duct members each include two longerons and comprise a vertical plane by stacking one duct upon another in co-longitudinal registry.

10. The drainage support matrix of claim 1 further comprising a membranous cover over
15 at least one face thereof.

11. A drainage support array comprising two or more skeletal ducts in unobstructed adjacent registry, each said duct further comprising an arrangement of multiple elements
20 of a hollow parametric geometry, said elements configured for interleaving and disposed in a spaced coaxial alignment, thereby effecting an overall skeletal profile.

12. The array of claim 11, wherein said hollow parametric geometry of the elements is at least one selected from the set of geometries consisting of arced and multilateral shapes.
13. The array of claim 12, wherein said multiple elements are joined integrally in alignment along and to one or more substantially parallel and flexible longerons, and each said element is defined by one or more of said hollow parametric geometries.
14. The array of claim 13, wherein said two or more ducts are coupled to each other by one or more stringers.
15. The array of claim 13, wherein said array effects an adjacent, staggered and co-longitudinal arrangement of two or more said ducts that is facilitated by interleaving of the said elements.
16. The array of claim 11, further comprising a covering selected from any of the materials consisting of filter and impermeable fabrics.
17. A drainage support array comprising two or more flexible skeletal ducts coupled in an unobstructed parallel adjacent registry, each said duct further comprising a coil of non-biodegradable material, each of said ducts adapted for their mutual entwinement and for entwinement with other multi-elemental skeletal ducts, and each said duct further adapted for their mutual interleaving and interleaving with said other multi-elemental skeletal ducts.

18. The array of claim 17, wherein hoops of said coil are integrally joined along and to one or more substantially parallel and flexible longerons.

19. The array of claim 17, wherein said two or more ducts are coupled to each other by
5 one or more stringers disposed transversely to said ducts in said parallel adjacent registry.

20. The array of claim 18, wherein said array effects a vertical and alternating, staggered and co-longitudinal stacking of two or more said ducts that is partially facilitated by said interleaving and substantially effected by said hoops resting upon said one or more
10 longerons.

21. The array of claim 17, further comprising a covering selected from any of the materials consisting of filter and impermeable fabrics.

15 22. A drainage support defined by a non-biodegradable matrix comprising at least a first series of elements having pre-selected geometric shapes, the elements each being extendable with said shapes and having optional central voids, said each element disposed in essentially orthogonal extension from a common and integrally bonded longeron and concomitantly disposed along the longeron in a spaced, coaxial relationship
20 with at least another element of said at least first series, and all said elements being selected from a set of said geometric shapes having elevations consisting of circles, ovals, rectilinear forms and concatenations thereof.

23. The support of claim 22 further comprising a second series of the elements in orthogonal extension from the longeron and disposed in the same spaced, coaxial relationship as, and adjacent, the first series.

- 5 24. The support of claim 22 further comprising a second series or more of the elements in orthogonal extension from the longeron and disposed in the same spaced, coaxial relationship as, and angularly offset, the first series, to form end elevations in various profiles that include an L, a T, a U, a V, a W, an X, a Y and combinations thereof, and wherein the first and the second or more series of elements are optionally staggered with
10 respect to each other.

15

20